

WHAT IS CLAIMED IS:

1. A surface inspecting apparatus for inspecting a shape of a surface to be inspected of an object to be inspected comprising:

5 a mounting base on which the object is mounted;

positioning means for positioning the object to an inspecting position on the mounting base;

a memory which stores position specifying information for specifying a two-dimensional position of the object when  
10 the object is positioned;

inputting means for inputting an outer shape data of the object; and

edge position determining means for determining an edge position of the object based on the stored position specifying  
15 information and the inputted outer shape data.

2. The surface inspecting apparatus according to claim 1, wherein the positioning means includes a guide member attached to the mounting base, with which the object is positioned to  
20 the inspecting position by being brought into contact with an edge of the object, and

wherein the memory stores the position specifying information for specifying the two-dimensional position of the object when the edge of the object is brought into contact with  
25 the guide member.

3. The surface inspecting apparatus according to claim 2,  
further comprising:

an image taking unit which takes an image of a mark  
5 provided for a predetermined position with respect to the guide  
member; and

reference position determining means for determining a  
reference position by processing the taken image including the  
image of the mark;

10 wherein the memory stores the determined reference  
position information as the position specifying information.

4. The surface inspecting apparatus according to claim 3,  
wherein the image taking unit takes an image of an interference  
15 fringe formed by the inspected surface of the positioned object  
and a reference surface.

5. The surface inspecting apparatus according to claim 1,  
further comprising:

20 existing region determining means for determining an  
existing region of the object based on the determined edge  
position.

6. The surface inspecting apparatus according to claim 1,  
25 further comprising:

analyzing means for determining a three-dimensional shape of the surface of the object; and

outputting means for outputting information of a positional relationship between the determined edge position  
5 and an analyzing region of the analyzing means.

7. The surface inspecting apparatus according to claim 1, further comprising:

analyzing means for determining a three-dimensional  
10 shape of the surface of the object;

effective region determining means for determining an effective region achieving a predetermined inspection accuracy from a result of analysis by the analyzing means; and

outputting means for outputting information of a  
15 positional relationship between the determined edge position and the determined effective region.

8. A surface inspecting apparatus for inspecting a shape of a surface to be inspected of an object to be inspected  
20 comprising:

a mounting base on which the object is mounted;

a guide member with which the object is positioned to an inspecting position on the mounting base by being brought into contact with an edge of the object;

25 a mark provided for a predetermined position with respect

to the guide member;

an image taking unit which takes an image of an interference fringe formed by the inspected surface of the positioned object and a reference surface, and an image of the mark;

analyzing means for determining a three-dimensional shape of the surface of the object based on the taken image of the interference fringe;

reference position determining means for determining a reference position by processing the taken image including the image of the mark;

inputting means for inputting an outer shape data of the object; and

edge position determining means for determining an edge position of the object based on the determined reference position information and the inputted outer shape data.

9. The surface inspecting apparatus according to claim 8, further comprising:

outputting means for outputting information on a positional relationship between the determined edge position and an analyzing region of the analyzing means.

10. The surface inspecting apparatus according to claim 8, further comprising:

effective region determining means for determining an  
effective region achieving a predetermined inspection  
accuracy from a result of analysis by the analyzing means; and  
outputting means for outputting information of a  
5 positional relationship between the determined edge position  
and the determined effective region.